

REMARKS

The Office Action mailed April 1, 2009, has been received and the Examiner's comments carefully reviewed. Claims 1-27 are pending. No new matter has been added. The claims are reproduced above for convenience. Favorable reconsideration of this application is requested in view of the following remarks.

I. Statutory Double Patenting

The Examiner has indicated that claims 1-27 of this application conflict with claims 1-6, 8, 9, 16, 34, 35, 37-51, 62, 76-86 of Application No. 10/575,632 (U.S. Pub. No. 2007/0028244). The Examiner has indicated that they have "identical subject matter". Applicants respectfully disagree. Claim 1 of Application No. 10/575,632 is at least missing the last element of claim 1 of the current application, a "software application" involving a configuration policy and tracking persistence. To be conflicting, they must be identical, not different in scope. In addition, Application No. 10/575,632 has not been allowed and therefore the rejection is premature. Applicants are unaware of what claims may issue in that case or the current case. Applicants will ensure that identical claims do not issue in both cases.

II. Non-statutory Double Patenting

The Examiner has provisionally rejected claims 1 and 15 on the ground of nonstatutory double patenting over claims 1 and 9 of copending Application No. 10/575,071 (U.S. Publication 2007/0061441). Applicants will file a terminal disclaimer upon allowance of the pending claims.

III. Claim Rejections - 35 USC § 102

A. Claims 1 and 15.

The Office Action rejected claims 1 and 15 under 35 U.S.C. § 102(e) as being anticipated by Waldspurger et al. (U.S. Patent No. 6,725,289, hereinafter "Waldspurger"). Applicants respectfully traverse this rejection, and do not accede to the characterization of the application or references made in the Office Action.

Claim 1, is a virtual data center that includes four distinct elements: virtualization software, at least one monitor, a context switch, and a software application. In contract, Waldspurger does not have any of these. With regard to the virtualization software, the Examiner cites to the Summary of the Invention and points to “a manager” as being the virtualization software. The Summary of the Invention identifies an “intermediate software layer such as a virtual machine monitor” (Col. 3, line 67- Col. 4, line 1) and “the manager in this case in the intermediate software layer” (Col. 4, lines 15-16). In Figure 2, the manager is the intermediate layer, and in Figure 3, the manager is also the intermediate layer as part of the VMM. The Examiner then cites to a virtual machine monitor (VMM) as satisfying the “at least one monitor element”. Yet, the “manager” of Waldspurger is the VMM. Then, the Examiner cites to the VMM as being the context switch. Finally, the Examiner cites to the VMM again as being the software application. Applicants respectfully disagree.

Under 35 U.S.C. 102, “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631 (Fed. Cir. 1987). Furthermore, “the identical invention must be shown in as complete detail as is contained in the... claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226 (Fed. Cir. 1989); see also M.P.E.P. 2131. Waldspurger cannot anticipate claim 1 at least because it does not expressly or inherently disclose each element of that claim, as is required for a rejection under 102. The Examiner cannot point to the same element (the manager/VMM - identified in different locations in Waldspurger) from Waldspurger as equivalent to the four distinct elements in claim 1. Therefore, Waldspurger does not teach or suggest virtualization software, at least one monitor, a context switch, and a software application as required by claim 1.

Furthermore, the VMM/manager of Waldspurger does not contain the “complete detail as is contained in” claim 1. Claim 1 requires “virtualization software loaded on each host computer, the virtual data center comprising: operating in said less privileged user memory and dividing the host computer into a plurality of virtual partitions including at least one user guest partition and at least one system partition, said operating system, and said at least one system partition maintaining a resource database for use in managing use of said at least one host processor and said system resources”. Waldspurger does not teach or disclose this. The “manager” cited by the Examiner is NOT taught or disclosed as “operating in said less privileged user memory”.

Waldspurger is silent about privileged or less privileged memory and also is silent about what memory the manager is operating in. The “manager” cited by the Examiner also does not teach or suggest “dividing the host computer into a plurality of virtual partitions”. It is clear from Waldspurger that a virtual system does exist. However, claim 1 requires that the virtualization software do the dividing. The manager in Waldspurger does not do this. In fact, Waldspurger is silent with regard to how the host computer is divided. Claim 1 also requires that there be a “resource database”. The Examiner has not pointed where in Waldspurger this is disclosed. Therefore, Waldspurger fails to teach or disclose virtualization software as defined by claim 1.

In addition, claim 1 includes “at least one monitor that operates in said most privileged system memory and maintains guest applications in said at least one guest partition within memory space allocated by said at least one system partition to said at least one guest partition”. Again, the Examiner cites to the VMM as satisfying this element. However, Waldspurger is silent about where the VMM is operating and cannot teach or suggest that the VMM is operating in most privileged memory. Also, the VMM in Waldspurger does NOT maintain guest applications in the guest partition. In fact, Waldspurger teaches away from this limitation. The VMM of Waldspurger is operating outside of the guest partition. See e.g. Figure 3. The VMM is simply mapping memory from the guest partition to the host partition. It does not maintain guest applications and could not. Therefore, Waldspurger fails to teach or disclose at least one monitor as defined by claim 1.

Furthermore, claim 1 includes “context switch between said at least one monitor and said respective guest and system partitions for controlling multitask processing of software in said partitions on said at least one host processor.” Again, the Examiner cites to the manager/VMM as satisfying this element. Claim 1 requires that the context switch be “between” the monitor and the guest partition. Waldspurger teaches away from this element. Even, assuming the Examiner is correct that the “manager” of the VMM is the context switch, it is not between the VMM and the guest partition. The manager is part of the VMM and cannot be between the VMM and the guest partition. In addition, claim 1 requires that the context switch control multitask processing of software. Waldspurger teaches away from this as well. The manager is simply mapping memory addresses. It cannot control multitask processing of software. Therefore, Waldspurger fails to teach or disclose a context switch as defined by claim 1.

In addition, claim 1 includes “a software application that owns a configuration policy for said data center and tracks persistence for respective domains to which each partition of said at least one host computer is assigned by said at least one system partition”. Again, the Examiner cites to the VMM as satisfying this element. Waldspurger does not teach or suggest that the VMM owns a configuration policy or tracks persistence for domains. All that is disclosed is that the VMM handles requests by the VM for machine resources (i.e. memory) as well as faults and interrupts. This is not teaching or suggesting a configuration policy or tracking persistence. Therefore, Waldspurger fails to teach or disclose a software application.

In sum, Waldspurger does not teach or disclose each of the elements of claim 1 in the same details as identified in claim 1. The Examiner cannot point to the manager/VMM as being each of the four independent and distinct elements of claim 1, and furthermore, the VMM cannot even satisfy one of the four independent and distinct elements of claim 1 as stated above, because it does not meet the definitions and function of those elements. For at least the above reasons, Waldspurger fails to disclose or suggest each of the elements of independent claim 1, which is therefore allowable. Applicants therefore respectfully request reconsideration and withdrawal of the rejection of this claim.

Claim 15 includes similar limitations to that discussed above with regard to claim 1. In particular, claim 15 is a method claim that includes “providing a context switch”, “assigning each partition to a domain of said at least one host processor in accordance with a configuration policy for said data center”, and “tracking persistence”. As discussed above with regard to claim 1, Waldspurger does not teach or suggest these elements. Therefore, for at least the same reasons, claim 15 is allowable over Waldspurger. Applicants therefore respectfully request reconsideration and withdrawal of the rejection of this claim.

III. Claim Rejections - 35 USC § 103

The Office Action rejected claims 2, 3, 16, and 27 under 35 U.S.C. § 103(a) as unpatentable over Waldspurger and in view of Osisek (U.S. Patent No. 5,555,384, hereinafter “Osisek”). Applicants respectfully traverse this rejection, and do not accede to the characterization of the application or references made in the Office Action.

Claims 2 and 3 depends from allowable claim 1. These claims therefore also require the same limitations as discussed above with regard to claim 1. For at least the reasons explained above, claims 2 and 3 are allowable as well. Osisek cannot make up for the deficiencies in Waldspurger discussed above. Claims 16 and 27 depend from allowable claim 15. These claims are also allowable for at least the same reasons.

The Office Action also rejected claims 4-7, 14, and 17-21 under 35 U.S.C. § 103(a) as unpatentable over Waldspurger in view of Osisek and further in view of Kauffman et al. (U.S. Patent No. 6,199,179, hereinafter “Kauffman”). Applicants respectfully traverse this rejection, and do not accede to the characterization of the application or references made in the Office Action.

Claims 4-7 and 14 depend from allowable claim 1. These claims therefore also require the same limitations as discussed above with regard to claim 1. For at least the reasons explained above, claims 4-7 and 14 are allowable as well. Osisek and Kauffman cannot make up for the deficiencies in Waldspurger discussed above. Claims 17-21 depend from allowable claim 15. These claims are also allowable for at least the same reasons.

The Office Action also rejected claims 8-13, and 22-26 under 35 U.S.C. § 103(a) as unpatentable over Waldspurger in view of Kauffman. Applicants respectfully traverse this rejection, and do not accede to the characterization of the application or references made in the Office Action.

Claims 8-13 depend from allowable claim 1. These claims therefore also require the same limitations as discussed above with regard to claim 1. For at least the reasons explained above, claims 8-13 are allowable as well. Kauffman cannot make up for the deficiencies in Waldspurger discussed above. Claims 22-26 depend from allowable claim 15. These claims are also allowable for at least the same reasons.

Conclusion

It is respectfully submitted that each of the presently pending claims is in condition for allowance and notification to that effect is requested. Although certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed

invention is patentably distinct. Applicant reserves the right to raise these arguments in the future. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone Applicant's attorney Richard Gregson, Reg. No. 41,804, at (215) 986-3325.

Respectfully submitted,

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